Discussion by Enrique Alarcon[2]

The writer would like to point out the existence of a very remarkable Spanish cable-stayed bridge built in 1925, which is thus older than the first one recorded by the authors (and probably the pioneer in concrete-deck type).

The Tempul Aqueduct (Fig. 1) was designed by the famous Professor Eduardo Torroja. The deck is a concrete box girder sustained by two planes of 3-mm diam 37-wire double cables (Fig. 2) working at 27 kg/mm^2.

The structural arrangement was intended as an alternative to the former project [Fig. 1(*a*)], avoiding the problem of constructing two central piles in deep water.

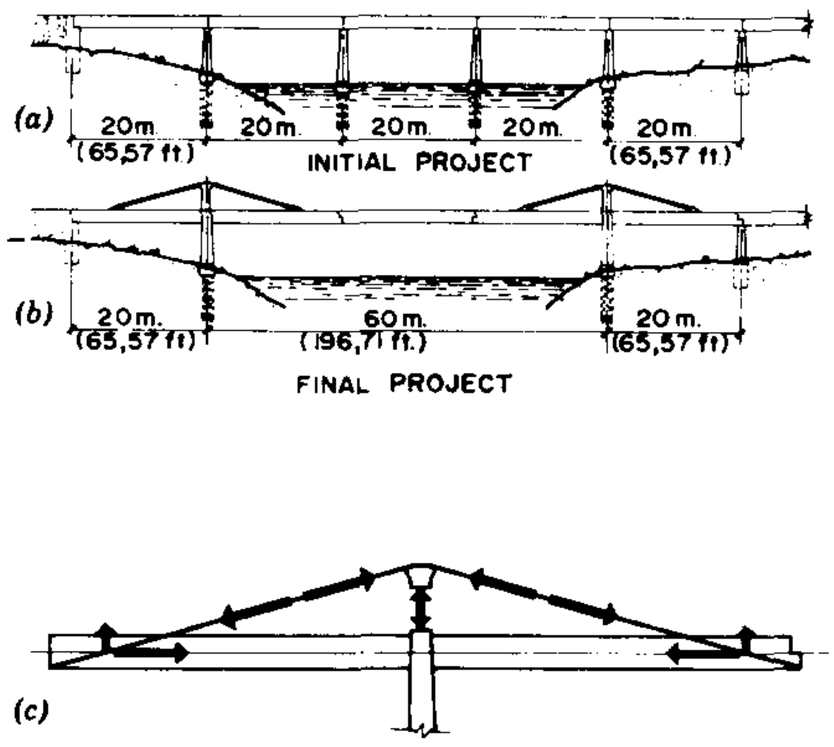

FIG. 1.—Tempul Aqueduct: (*a*) Initial Plan; (*b*) Completed Project; (*c*) Detail of Tower and Deck

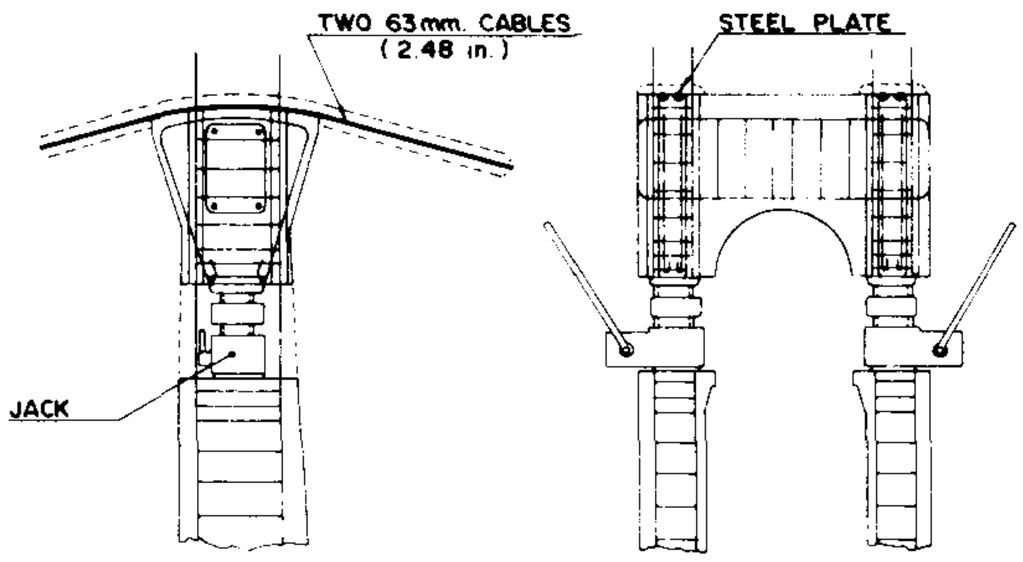

FIG. 2.—Tower Jacks

Two jacks inserted in the top of the towers [Figs. 1(*b*) and 1(*c*)] provided the prestressing of the deck and served to lift it from the false work. Several weeks after this operation, it was refined and the place of the jacks was filled with concrete. To prevent corrosion the cables were also re-covered.

APPENDIX.—BIBLIOGRAPHY

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